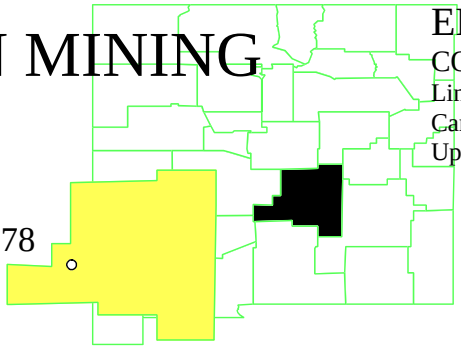
CIMARRON MINING CORP.

NEW MEXICO

EPA ID# NMD980749378
Site ID: 0600897



EPA REGION 6
CONGRESSIONAL DISTRICT 02
Lincoln County
Carrizozo
Updated September 2004

Site Description

Location:
- The first Operable Unit (OU) is on Highway 380 in Carrizozo.
- The second OU ("Sierra Blanca") is approximately one mile south of the first OU.

Population:
- Approximately 1,000 people obtain drinking water from 29 municipal wells within 3 miles of the site.

Setting:
- The nearest municipal well is about 2 miles away from the Cimarron Mining Corp. area and 1/2 mile from the Sierra Blanca mill area.
- Wells are also used to irrigate food crops.
- Operable Unit 1 (OU1) covers approximately 10 acres and operated as a mill for raw ore. Precious metals were extracted with cyanide.
- Operable Unit 2 (OU2) covers about 7 acres, and operated as a mill that recovered precious metals using a flotation process.

Hydrology:
- The site is underlaid by quaternary alluvium and bolson deposits, in turn, underlaid by Cretaceous Mesa Verde and Mancos Shale Formations.

Present Status

- EPA and NMED are reviewing monitoring data to determine if it supports a ROD Amendment, invoking a technical impracticality waiver for OU-1. NMED will be resuming O&M responsibilities beginning January 2005.

Recent Actions

- A Five Year Review was signed by the Division Director for both Operable Units on July 7, 2003.
- In the Five Year Review, the remedy was found to continue to be protective of human health and the environment.

Wastes and Volumes

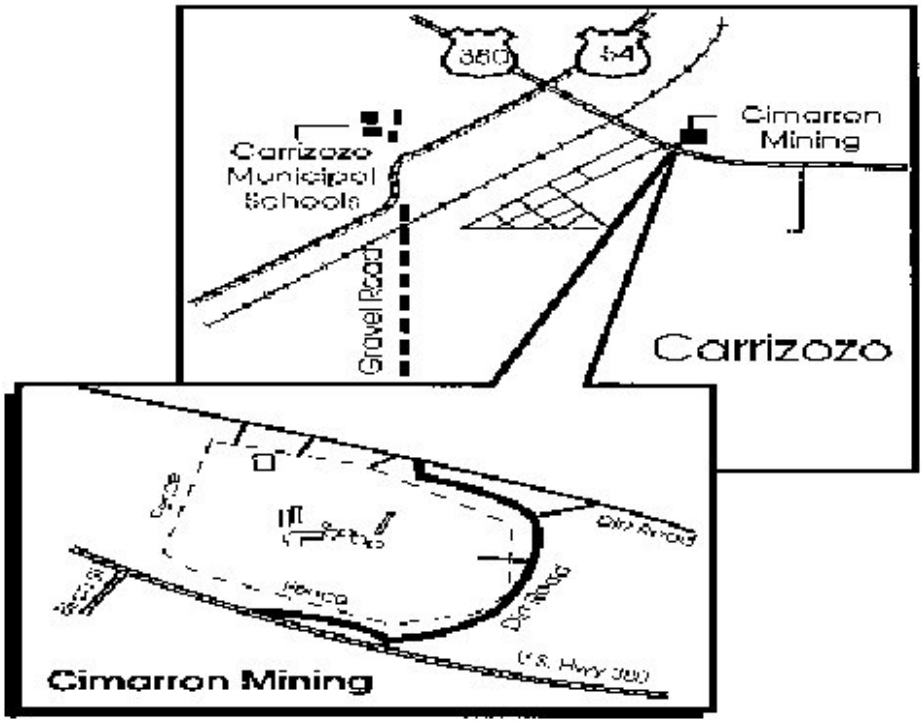
- The principal pollutants at the site include cyanide in ground water up to 4,330 parts per billion (ppb) at Operable Unit 1, and lead in soils and sediments up to 18,000 parts per million (ppm) at Operable Unit 2.

● Waste volumes are approximately 500,000 gallons of contaminated shallow ground water at OU1, and about 1,000 cubic yards of contaminated soils and sediments at OU2.

Site Assessment and Ranking

NPL LISTING HISTORY
Site HRS Score: 38.93
Proposed Date: 6/24/88
Final Date: 10/04/89
NPL Update: No. 7

Site Map and Diagram



The Remediation Process

Site History:

- The site operated from 1979 to 1982 using cyanide salts and metal strippers to extract gold from ore brought to the site.

- The New Mexico Environment Department (NMED) sent a certified Notice of Violation letter to Cimarron Mining Corp. on 6/22/82 for a non-permitted discharge.

- Cimarron filed for bankruptcy in July 19983.

- During an NMED-lead site inspection in May and June 1984, cyanide and heavy metals were detected in ground water, soils and mill tailings.

- In August 1987, EPA Emergency Response constructed a fence and posted warning signs to alert nearby community of contaminated site conditions.

- EPA began the remedial investigation and feasibility study (RI/FS) in March 1989.

- The "Sierra Blanca" property, a former processing area related to site operation, was incorporated into the site response actions in 1/90 as OU2.

- July 1991 - May 1992, equipment was decontaminated and high hazard material was contained in mixing vats, tanks, and troughs. The contained waste was then consolidated and staged, overpacked onsite, then disposed of offsite.

- EPA, NMED and Corps of Engineers staff completed a groundwater sampling event in August, 1998 to assess the need for ongoing extraction and treatment of groundwater.

- In February 1999, EPA removed all extraction well pumps and determined that they were not functioning properly. EPA and NMED considered whether alternate methods exist to more effectively remove cyanide contaminated groundwater, given the low volume of groundwater being extracted.

- On August 31, 2000, EPA published a Partial Deletion of the Site in the Federal Register. The action deleted OU 2 from the NPL, along with the soils at OU 1. The ground water treatment at OU 1 continues and will remain on the NPL until further action.

- Three new pumps were installed in the 3rd quarter of 2000 at OU 1 in order to try to increase the recovery of ground water and cyanide from the aquifer. Pump and discharge activities continued at OU 1 through the last quarter.

- Ground Water pumping was discontinued December 2001 due to the low recovery rates of contaminants. However, ground water contaminants are monitored every two months. Since December, we have also been taking water measurements every month, to support a site deletion. We expect that semi-annual sampling will be required at a minimum, after site deletion.

Health Considerations:

- Potential for deeper drinking water aquifer contamination at OU1, and for ingestion of lead-contaminated soils at OU2.

Record of Decision

Signed: September 21, 1990 (OU1)
Signed: September 6, 1991 (OU2)

Ground Water (OU1):

- The Record of Decision (ROD) for the OU1 required extraction of cyanide from the shallow ground water and discharge to the publicly owned treatment works (POTW).

Soil Treatment (OU2):

- This ROD required solidification and stabilization of contaminated soils and waste piles exceeding 500 ppm lead, with on site disposal.

Other Remedies Considered	Reason Not Chosen
GROUND WATER (OU1)	
1. No Action	Not Protective
2. Institutional Controls	No treatment; not protective
3. Pump and evaporate ground water	Not cost-effective in the long term
4. Pump, treat and recharge ground water	Not cost-effective in the long term
GROUND WATER (OU2)	
1. No Action	Not protective
2. Institutional Controls	No treatment, not protective
3. Cement Solidification/Off-site Municipal Landfill	Not cost-effective in the long term
4. Off-site Municipal/Hazardous Landfill	Not cost-effective in the long term

Community Involvement

- Community Involvement Plan: Developed 4/89, revised 1991.
- Open houses and workshops: 9/88, 5/89, 3/90, 7/90, 7/2000, numerous other informal meetings.
- Original Proposed Plan Fact Sheet and Public Meeting: 7/30/90 (OU1), 6/17/91 (OU2).
- Original ROD Fact Sheet: 10/90 (OU1), 9/91 (OU2).
- Milestone Fact Sheets: 5/89, 3/90, 7/2000 (OU2 partial site deletion from NPL).
- EPA, along with NMED and the Army Corps of Engineers announced the partial site deletion at a Community Open House and answered questions from community members in attendance.
- Citizens on site mailing list: 83
- Constituency Interest:
  - Medium interest by the community.
  - Most citizens and officials do not feel any significant health threats exist at the site.

- Site Repository: Carrizozo City Hall, 100 Fifth Street, Carrizozo, NM 88301

Technical Assistance Grant

- Availability Notice: 1/89
- Letters of Intent Received: None
- Final Application Received: None

- Grant Award: N/A
- Current Status: No apparent interest by citizens in applying for the grant.

Contacts

- **Remedial Project Manager:** Petra Sanchez (EPA) 214-665-6686, Mail Code: 6SF-LT
- **State Contact:** George Schuman, 505/827-0037
- **Community Involvement Coordinator:** (EPA) 214-665-6619, Mail Code: 6SFPO
- **Attorney:** Paul Wendel (EPA) 214-665-2157, Mail Code: 6RC-S
- **EPA Region 6 Ombudsman:** Arnold Ondarza (EPA) 1-303-312-6777; 1800-424-9346

Benefits

- Drinking water for 1,000 residents drawn from public and private wells within three miles of the site will be protected from site contaminants.
- 500,000 gallons of shallow contaminated ground water, and 1,000 cubic yards of contaminated soils and sediments is projected to be remediated.
- The Town of Carrizozo is negotiating a contract for redevelopment at OU -2 as an industrial site with a private developer.